

Application No.: 10/594,161
Amendment Dated: June 23, 2011
Reply to Office Action of: March 25, 2011

MAT-8897US

Remarks/Arguments:

Claims 1 and 3 are presently pending. Claim 1 has been amended. Claims 10-12 have been newly added. Reconsideration is respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103

Page 3 of the Office Action sets forth "Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida (JP: 2003-308783) of record in view of Nunomura (US. Pat: 6,479,932 B1) of record in further view of Kim et al., (US. Pub: 2005/0067964 A1)." Applicants respectfully submit that these claims are allowable over the applied references for the reasons set forth below.

Applicants' invention, as recited by claim 1, includes features which are not disclosed, taught, or suggested by the applied references, namely:

...plural data electrodes...including a middle portion having a first constant width, opposite end portions having a second constant width, and respective tapered portions extending from the middle portion to each of the end portions...

...wherein the second constant width is greater than the first constant width by a factor of more than 1.0 and not more than 1.5....

The data electrodes have a middle portion with a first constant width and opposite end portions having a second constant width. The opposite end portions are wider than the middle portion by a factor of more than 1.0 and not more than 1.5. This feature is found in the originally filed application at page 16, lines 7-9. No new matter is added.

Applicants respectfully submit that the applied references fail to disclose, teach, or suggest at least the above features of claim 1.

Uchida is directed to a plasma display panel. As illustrated in FIGS. 1 and 3, for example, Uchida discloses a plasma display panel having a plurality of rear

electrodes 1A and 1C. Rear electrodes 1A and 1C are wide at a top portion and narrow at a bottom portion. See Uchida at FIGS. 1 and 3.

Uchida fails to disclose, teach, or suggest an electrode having opposite end portions that are wider than a middle portion, or that the opposite end portions have a width greater than the middle portions by a factor of more than 1.0 and not more than 1.5. To the contrary, Uchida discloses that electrodes 1A and 1C have one wide end portion and one narrow end portion. See FIGS. 1 and 3. The narrow end portion of each electrode is not wider than the corresponding middle portion. This is different from claim 1, which requires (1) data electrodes having opposite end portions wider than their respective middle portion and (2) the width of the end portions being wider by a factor of more than 1.0 and not more than 1.5.

Applicants respectfully submit that Nunomura and Kim fail to make up for the deficiencies of Uchida with respect to claim 1.

Nunomura is also directed to a plasma display panel. As illustrated in FIG. 21, Nunomura discloses a plasma display panel having data electrodes 16. Data electrodes 16 have wide portions 33 and narrow portions 34. See Nunomura at column 13, lines 10-29, and FIG. 21.

Like Uchida, Nunomura fails to disclose, teach, or suggest an electrode having opposite end portions that are wider than a middle portion, or that the opposite end portions have a width greater than the middle portions by a factor of more than 1.0 and not more than 1.5. To the contrary, Nunomura discloses that the end portions of data electrodes 16 have the same width as the corresponding middle portion 34. See Nunomura at FIG. 21. This is different from claim 1, which requires (1) data electrodes having opposite end portions wider than their respective middle portion and (2) the width of the end portions being wider by a factor of more than 1.0 and not more than 1.5.

Kim is also directed to a plasma display panel. As illustrated in FIG. 6, Kim discloses a plasma display panel having address electrodes 521, 522, 523. Address electrode 521 corresponds to a blue discharge cell 550B, while address electrode 522 corresponds to a red discharge cell 550R. Address electrode 521 includes a prominent

electrode 561 which is wider than a corresponding prominent electrode 562 of address electrode 522. See Kim at paragraphs [0046]-[0050] and FIG. 6.

Like Uchida and Nunomura, Kim fails to disclose, teach, or suggest an electrode having opposite end portions that are wider than a middle portion, or that the opposite end portions have a width greater than the middle portions by a factor of more than 1.0 and not more than 1.5. This is different from claim 1, which requires (1) data electrodes having opposite end portions wider than their respective middle portion and (2) the width of the end portions being wider by a factor of more than 1.0 and not more than 1.5.

As set forth above, each of the applied references fails to disclose, teach, or suggest an electrode having opposite end portions wider than a middle portion, or that the opposite end portions have a width greater than the middle portions by a factor of more than 1.0 and not more than 1.5. Applicants further submit that this range of ratios recited in claim 1 is not obvious based on the applied references.

As set forth in the M.P.E.P., "[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." See M.P.E.P. § 2144.05. None of the applied references recognizes that the ratio of an electrode's end portion width to the electrode's middle portion width is a variable which achieves a recognized result (i.e. a result-effective variable). Thus, Applicants submit that one of ordinary skill in the art would have no reason to optimize this variable. As such, Applicants submit that the range of ratios recited in claim 1 is not obvious in view of the applied references.

For the above reasons, Applicants respectfully submit that Uchida in view of Nunomura and Kim fails to disclose, teach, or suggest the features of "plural data electrodes...including a middle portion having a first constant width, opposite end portions having a second constant width, and respective tapered portions extending from the middle portion to each of the end portions...wherein the second constant width is greater than the first constant width by a factor of more than 1.0 and not more than 1.5," as recited in claim 1.

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It is because Applicants' invention includes the above features that the following advantages are achieved. With these features, "[s]tabilization of writing discharging and suppression of increases in data power can be achieved...." See the originally filed application at page 16, lines 7-17.

Accordingly, for the reasons set forth above, claim 1 is allowable over the applied references. Withdrawal of the rejection and allowance of claim 1 is respectfully requested.

Claim 3 includes all of the features of claim 1, from which it depends. Thus, claim 3 is also allowable over the applied references for at least the reasons set forth above with respect to claim 1. Withdrawal of the rejection and allowance of claim 3 is respectfully requested.

New Claims

Applicants herein add new claims 10-12. Claim 10 includes all of the features of claim 1, from which it depends. Thus, claim 10 is also allowable over the applied references for at least the reasons set forth above with respect to claim 1.

Claims 10 and 11 include additional features which are not disclosed, taught, or suggested by the applied references, namely:

...the second constant width is not more than a half of a spacing between the adjacent two of the barrier ribs.

The data electrodes have a middle portion with a first constant width and opposite end portions having a second constant width. The second constant width is not more than half of the spacing between adjacent barrier ribs. This feature is found in the originally filed application at page 16, lines 17-18. No new matter is added.

Applicants submit that the ratio of the electrode end portion width to the barrier rib spacing recited in claims 10 and 11 is not obvious based on the applied references. As set forth above, "[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be

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characterized as routine experimentation.” None of the applied references recognizes that the ratio of an electrode’s end portion width to the spacing of adjacent barrier ribs is a variable which achieves a recognized result (i.e. a result-effective variable). Thus, Applicants submit that one of ordinary skill in the art would have no reason to optimize this variable. As such, Applicants submit that the ratio recited in claims 10 and 11 is not obvious in view of the applied references.

It is because Applicants’ invention includes the above features that the following advantages are achieved. “By setting the dimensions in this way, data electrodes 10 are reliably disposed between barrier ribs 11.” See the originally filed application at page 16, lines 19-20.

Accordingly, claims 10 and 11 are allowable over the applied references for at least this additional reason.

Claim 12 includes all of the features of claim 11, from which it depends. Thus, claim 12 is also allowable over the applied references for at least the reasons set forth above with respect to claim 11.

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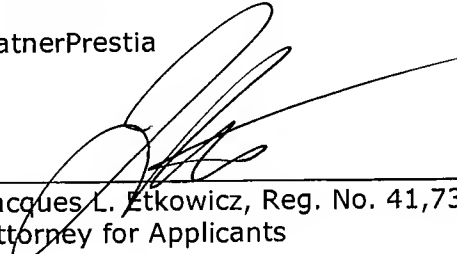
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Conclusion:

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,

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